

alleged to be—satisfactory. In nine cases the parents did not know the whereabouts of their married children; one mother did not even know her daughter's married name. Five marriages were already broken up; the remaining sixteen were "known to be unhappy and unsatisfactory."⁸

Stature of Five-Year-Olds

Compared with thirty years ago, Edinburgh children at five years of age are more than three inches taller and correspondingly heavier, according to a recent investigation published in the Health Bulletin of the Department of Health for Scotland. The mean height of 109 boys in the tests was shown

to be 43.12 inches compared with 39.94 when a similar investigation was made in 1926; figures for girls were 42.87 and 39.16. Tests taken in Oxford give similar results.⁹

¹ *Birmingham Post*, June 21st, 1955.

² *The Times*, October 1st.

³ *The Times*, November 23rd.

⁴ *The Times*, November 21st.

⁵ *Manchester Guardian*, November 8th.

⁶ *Birmingham Gazette*, September 28th.

⁷ *News Chronicle*, October 7th.

⁸ *Municipal Journal*, October 7th.

⁹ *Scotsman*, October 10th.

CORRESPONDENCE

"Natural Regulation of Numbers in Human Populations"

To the Editor, Eugenics Review

SIR,—In his article in the October 1955 issue of the REVIEW on the regulation of numbers in human populations, Dr. Goodhart has put forward some interesting speculations about the operation of natural selection in relation to high fecundity. The examples that he can cite in favour of his theories are necessarily few, and on the side of actual developments in populations his argument rests rather heavily on Ireland in the nineteenth century. The choice of this particular illustration seems, however, an unfortunate one. In the first place, he contrasts the lack of population growth in Ireland itself with the advance in the numbers of Irish descent in the United States of America, and suggests that the reason for the difference is that the emigrants maintained their fecundity whereas those who stayed at home did not. Nevertheless it is to be borne in mind that the Irish in America were not being continually depleted by outward migration as were those in Ireland. Moreover, intermarriage with non-Irish elements in America would tend to augment the number of people there who could claim Irish descent, in a way that could not happen in Ireland. Thus it cannot be said, without further evidence such as the comparison of fertility rates, that the two groups of Irish differed in fecundity.

Dr. Goodhart has omitted to mention that an important cause of slow population growth in Ireland has been late marriage and a reduced frequency of marriage. In 1936, for instance, no less than one-third of men and one-quarter of

women were unmarried at ages forty-five to fifty-four, whereas the corresponding proportions in 1851 were little over 10 per cent.

The positive association that was shown to exist in England and Wales in the years before 1911 between large families and high child mortality is a factor operating against the thesis that in times of relatively heavy death rates natural selection acts strongly in favour of high fecundity.

P. R. Cox.

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To the Editor, Eugenics Review

SIR,—Although there are no reliable figures for the numbers of Irish in the United States, and no estimate of their fertility can be made, there is little doubt that they do form a considerable fraction of the present population and that they must have played their full part in the great increase that has occurred since 1850. The argument, however, relies less upon the presumed higher fertility of the Irish emigrants than upon the undoubted low fertility of those left behind, in contrast with the extraordinarily high rate before the main emigrations took place. This low fertility (and there is no doubt that it is low, quite apart from the drain on the population of continued emigration) is certainly largely due to late marriage and to the reduced frequency of marriage in Ireland at the present time. It is however suggested that late marriage and, especially, failure to marry at all may be due in part to inherited genetical factors. If it is true that many people in Ireland are "not the marrying type," then they are to be considered infecund, even though their infecundity

is psychological rather than physiological in origin, in the sense that a man who is impotent is infecund, even though he may be able to produce viable gametes. There is, of course, no reason why psychological tendencies, or bodily characters influencing them, should not be inherited genetically just like anything else.

High fecundity is always of survival value, other things being equal, and differential child mortality must be very high indeed to offset its advantage in selection. The suggestion, however, is that when indiscriminate mortality from disease is high the relative disadvantage of low fecundity is greater, owing to the danger of the complete extinction of low fertility lines, than when mortality is lower and disease is at least partially under control. There had been very real advances in public health and medicine in England and Wales before 1911, especially amongst the better off sections of the population, and mortality from smallpox, cholera and plague, for instance, was negligible; these were the diseases that in previous centuries had struck indiscriminately at rich and poor alike. Since 1911 the contrast between the material conditions of life and medical treatment available to different classes has been much diminished, and the positive association between child mortality and large families will have decreased, though even today it is likely that the less fertile, who are generally better off, will take greater care of their fewer children and so have a significantly lower rate of child mortality.

C. B. GOODHART.

University Museum of Zoology, Cambridge.

An Oral Method of Birth Control

To the Editor, Eugenics Review

SIR,—Everyone will recognise the importance of a reliable oral method of birth control in the struggle against over population. That such a drug could be an equally potent weapon in furthering eugenic progress is not perhaps so obvious.

Let us suppose that drug X is an effective oral contraceptive and that drug Y is an equally effective antidote to drug X.

Let a government add drug X to the staple food of its people and let it sell drug Y, the antidote, at a price fixed at its discretion. By varying the price of drug Y, the size of the population could be controlled, and at the same time the genetic

quality would improve, for only the philo-progenitive and the reasonably successful would be able and willing to pay for drug Y. The irresponsible and the feckless would automatically be sterilized.

Naturally, I would not expect a democratic government to have the foresight or the courage to adopt such a scheme until famine was upon them, but it seems likely that famine may not be far off.

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A Register of Intelligence

To the Editor, Eugenics Review

SIR,—In a Welfare State we are so busy achieving perfect equality that we tend to overlook the need for high quality. Intelligence—which by nature and etymology denotes a selection—may suffer irreparable harm from this neglect of quality. Since our survival as an industrial nation depends on our ability to maintain or increase intelligence, the Ministry of Education should require headmasters of non-primary schools to list the highest fifth and lowest fifth of children leaving school during the year. This information could easily be confidential for research in vital statistics where no individual case would be published. Admittedly some children achieve their full intelligence only after leaving school and we must be content with an imperfect classifying of children. The inflexible one-fifth rule is better than any attempt at defining critical points on an imaginary scale for classifying children in the three groups of high, low and average intelligence.

Having obtained the two extreme lists for any year we need to incorporate them in two registers—one for high and the other for low intelligence. Marriages, childbirths, divorces and death would need to be registered along with the ages at which such events occur. In an earlier letter I have suggested a dot-coded register for the whole population from birth to death (or intervening immigration or emigration) and such a register could very conveniently be given a few extra columns—two would suffice—for recording persons who on leaving school were classified as being of very high or very low intelligence.

Otherwise we run the risk of becoming a nation of dockers on strike, coalminers with a 10 per cent absence rate and other so-called manual workers.

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